

CD40 Monoclonal Antibody (1C10), PerCP-eFluor 710, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	1C10
Conjugate	PerCP-eFluor™ 710
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573678

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	19 Publications

Product Specific Information

Description: The 1C10 monoclonal antibody reacts with mouse CD40, a 45-50 kDa type I transmembrane glycoprotein. CD40 is a member of the TNFR family and is expressed by mouse B lymphocytes, follicular dendritic cells, thymic epithelium, and a subset of peripheral T cells. CD40 regulates B cell development/maturation by inducing Ig isotype switching and in combination with other signals such as IL-4, protects B cells from surface Ig-induced apoptosis and promotes proliferation. Interaction of CD40 with CD154 (gp39), its ligand on T cells, is important in T-B cell crosstalk and plays a role in costimulation and immune regulation.

The monoclonal antibody 1C10 is reported to have agonistic activity in vitro and in vivo.

Applications Reported: The 1C10 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 1C10 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure

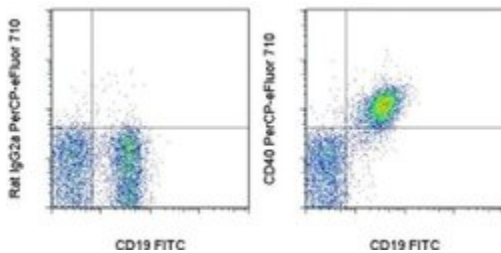
that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD40 Monoclonal Antibody (1C10), PerCP-eFluor 710, eBioscience™



CD40 Antibody (46-0401-82) in Flow

Staining of BALB/c splenocytes with Anti-Mouse CD19 FITC (Product # 11-0193-82) and 0.25 µg of Rat IgG2a K Isotype Control PerCP-eFluor® 710 (Product # 46-4321-82) (left) or 0.25 µg of Anti-Mouse CD40 PerCP-eFluor® 710 (right). Cells in the lymphocyte gate were used for analysis.

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19 References

Flow Cytometry (19)

Nature communications

CD103⁺ cDC1 and endogenous CD8⁺ T cells are necessary for improved CD40L-overexpressing CAR T cell antitumor function.

"46-0401 was used in Flow cytometry/Cell sorting to demonstrate the stimulatory effect of CD40L-overexpressing CAR T cells on innate and adaptive immune cells, and provide a rationale for using CD40L-overexpressing CAR T cells to improve immunotherapy responses."

Authors: Kuhn NF, Lopez AV, Li X, Cai W, Daniyan AF, Brentjens RJ

Species
Mouse

Dilution
Not Cited

Year
2020

Nature communications

Senolytics prevent mt-DNA-induced inflammation and promote the survival of aged organs following transplantation.

"Published figure using CD40 monoclonal antibody (Product # 46-0401-82) in Flow Cytometry"

Authors: Iske J, Seyda M, Heinbokel T, Maenosono R, Minami K, Nian Y, Quante M, Falk CS, Azuma H, Martin F, Passos JF, Niemann CU, Tchkonina T, Kirkland JL, Elkhall A, Tullius SG

Species
Not Applicable

Dilution
Not Cited

Year
2020

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More applications with references on thermofisher.com

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